Amendments to the Claims

This listing of claims will replace all prior version and listings of claims in the application:

Listing of Claims:

- 1-20. (Cancelled).
- 21. (Currently amended): A saccharide-conjugated nanoparticle comprising:
 - (a) a core gold nanoparticle, comprising gold atoms, without Fe atoms and having no magnetic property; [[and]]
 - (b) a plurality of saccharide molecules; and
 - (c) <u>a linker, linking-attached</u> the plurality of saccharide molecules to the core gold nanoparticle:[[,]]

wherein the saccharide-conjugated nanoparticle has an average diameter of about 2-9 nm.each of the saccharide molecules has a specific binding affinity to a target protein.

- 22. (Currently amended): The saccharide-conjugated nanoparticle of claim 21, wherein the target protein is expressed by an infectious agent plurality of saccharide molecules are selected from[[a]] the group consisting of bacteria, viruses, mycoplasma and fungi a monosaccharide and a Pk antigen.
- 23. (Currently amended): The saccharide conjugated nanoparticle of claim [[22]]21, wherein the infectious agent is present in a host organism plurality of saccharide molecules comprises at least 150 molecules.

- 24. (Currently amended): The saccharide-conjugated nanoparticle of claim 21, wherein the target protein is a mannose specific binding proteinlinker is 5-thio-pentan-1-ol.
- 25. (Currently amended): The saceharide conjugated nanoparticle of claim 24, wherein the mannose-specific binding protein is FimH protein A composition comprising:
 - (a) a saccharide-conjugated nanoparticle, which comprises:
 - (i) a core gold nanoparticle, comprising gold atoms, without Fe atoms and having no magnetic property;
 - (ii) a plurality of saccharide molecules; and
 - (iii) a linker, attaching the plurality of saccharide molecules to the core gold nanoparticle; and
 - (b) a pathogen, bound to the saccharide-conjugated nanoparticle.
- 26. (Currently amended): The saceharide conjugated nanoparticle of claim 21 composition of claim 25, wherein the target protein pathogen is Shiga like toxin selected from the group consisting of bacteria, viruses, mycoplasma and fungi.
- 27. (Currently amended): The saccharide conjugated nanoparticle of claim 21 composition

 according to claim 25, wherein the target protein is lectin further comprising a non-human subject infected with the pathogen.

- 28. (Currently amended): The saccharide conjugated nanoparticle of claim 27composition of claim 25, wherein the [[lectin]] plurality of saccharide molecules are is Concannvalin A selected from the group consisting of a monosaccharide, and a Pk antigen.
- 29. (Currently amended): The saceharide conjugated nanoparticle of claim-21composition of claim 25, wherein the saceharide linker is a monosaceharide5-thio-pentan-1-ol.
- 30. (Currently amended): The saceharide conjugated nanoparticle of claim 29 composition of claim 25, wherein the monosaccharide is mannose plurality of saccharide molecules comprise at least 150 molecules.
- 31. (Currently amended): The saceharide conjugated nanoparticle of claim 21composition of claim 28, wherein the monosaccharide is selected from the group consisting of mannose, galactose, and glucose is an oligosaccharide.
- 32. (Currently amended): The saceharide conjugated nanoparticle composition of claim[[31]]28, wherein the oligosaccharide is plurality of saccharide molecules are Pk antigen.
- 33. (Currently amended): The saccharide conjugated nanoparticle composition of claim[[21]]

 29, wherein the <u>plurality of saccharide is a polysaccharide molecules comprise at least</u>

 150 molecules.

- 34. (Currently amended): The saccharide conjugated nanoparticle composition of claim

 [[21]]29, wherein the <u>plurality of saccharide</u> [[is]]molecules are selected from mannose,

 galactose and glucose a monosaccharide and a Pk antigen.
- 35. (Currently amended): A saccharide-conjugated nanoparticle comprising:
 - (a) a core gold nanoparticle, comprising gold atoms, without Fe atoms and having no magnetic property; [[and]]
 - (b) a plurality of saccharide molecules; and attached to the core gold nanoparticle
 - (c) a linker, attaching the plurality of saccharide molecules to the core gold nanoparticle;

wherein-each of the <u>plurality of saccharide molecules</u> as specific binding affinity to a target protein of an infectious agent are selected from the group consisting of a monosaccharide and a Pk antigen.

- 36. (Currently amended): The saccharide-conjugated nanoparticle of claim 35, wherein the target protein is Shiga-like toxin plurality of saccharide molecules comprises at least 150 molecules.
- 37. (Currently amended): The saccharide-conjugated nanoparticle of claim 35, wherein the target protein is a mannose-specific binding protein monosaccaride is selected from the group consisting of mannose, galactose and glucose.

Reply to Office Action of 07/22/2009

- 38. (Currently amended): The saccharide conjugated nanoparticle of claim 35, A composition comprising:
 - (a) a saccharide-conjugated nanoparticle according to claim 35; and
 - (b) a pathogen, bound to the nanoparticle-wherein the infectious agent is present in a host organism.
- 39. (Currently amended): A-saceharide conjugated nanoparticle composition comprising:
 - (a) a core gold saccharide-conjugated nanoparticle according to claim 38, comprising gold atoms, without Fe atoms and having no magnetic property; and
 - (b) a plurality of saccharide molecules attached to the core gold nanoparticle, wherein each of the saccharide molecules has a specific binding affinity to lectin subject infected with the pathogen.
- 40. (Currently amended): The saceharide conjugated nanoparticle composition of claim 38, wherein the lectin is Concannvalin A monosaccharide is selected from the group consisting of mannose, galactose, and glucose.